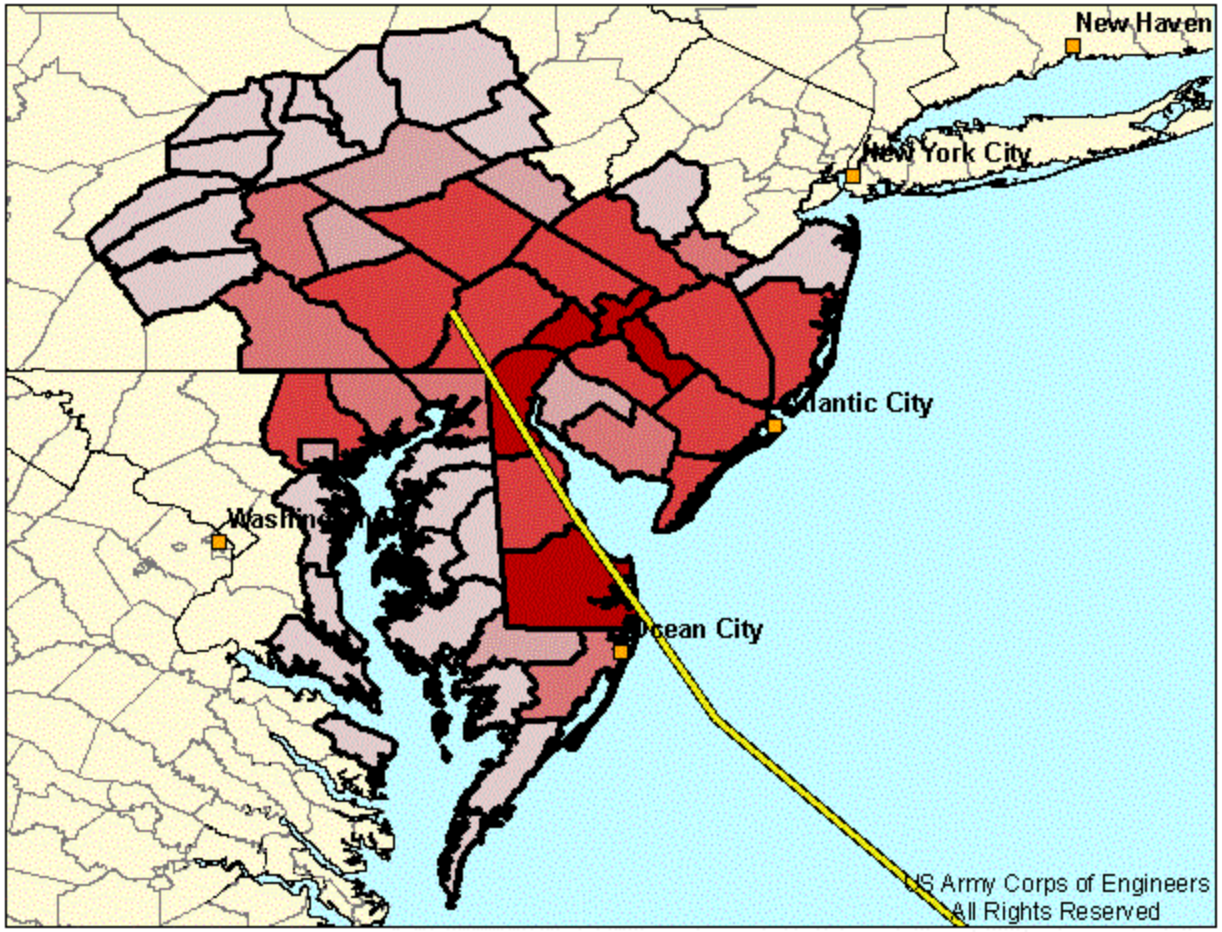
US Army Corps of Engineers

Hurricane DE#1 Debris Model

Landfall Plus About 12 Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

Delaware - 13,130,000 Yards
Pennsylvania - 7,878,000 Yards
New Jersey - 5,660,000 Yards
Maryland - 2,512,000 Yards
Virginia - 96,000 Yards

Model results per County on following page

This model is based on a Category 2 storm making landfall in Delaware Bay area.

Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 2 storm making landfall in Delaware Bay area. These projections are based on information from the NHC (0830 EDT 05/19/2008) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane DE#1 Debris Model

Generated By:
Siemsen, LRL 0900 EDT 05/19/2008

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane DE#1 Debris Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Delaware		Kent	996,000
		New Castle	2,884,000
		Sussex	9,250,000
Delaware	13,130,000		
Maryland		Anne Arundel	33,000
		Baltimore	535,000
		Baltimore City	140,000
		Calvert	< 1,000
		Caroline	69,000
		Cecil	450,000
		Dorchester	57,000
		Harford	365,000
		Kent	49,000
		Queen Anne's	70,000
		Somerset	48,000
		St Mary's	2,000
		Talbot	53,000
		Wicomico	222,000
		Worcester	419,000
Maryland	2,512,000		
New Jersey		Atlantic	729,000
		Burlington	613,000
		Camden	1,199,000
		Cape May	690,000
		Cumberland	415,000
		Gloucester	692,000
		Hunterdon	< 1,000
		Mercer	312,000
		Monmouth	14,000

State	Yards per State	County	Yards per County
New Jersey		Ocean	746,000
(continued)		Salem	250,000
New Jersey	5,660,000		
Pennsylvania		Berks	723,000
		Bucks	573,000
		Carbon	5,000
		Chester	860,000
		Columbia	37,000
		Cumberland	17,000
		Dauphin	261,000
		Delaware	1,018,000
		Juniata	< 1,000
		Lancaster	863,000
		Lebanon	232,000
		Lehigh	146,000
		Luzerne	2,000
		Montgomery	770,000
		Montour	15,000
		Northumberland	76,000
		Perry	< 1,000
		Philadelphia	1,737,000
		Schuylkil	201,000
		Snyder	15,000
		Union	< 1,000
		York	327,000
Pennsylvania	7,878,000		
Virginia		Accomack	81,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Hurricane DE#1 Debris Model

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Siemsen, LRL 0900 EDT 05/19/2008

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane DE#1 Debris Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Virginia		Northampton	10,000
(continued)		Northumberland	5,000
Virginia	96,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Hurricane DE#1 Debris Model

Generated By:
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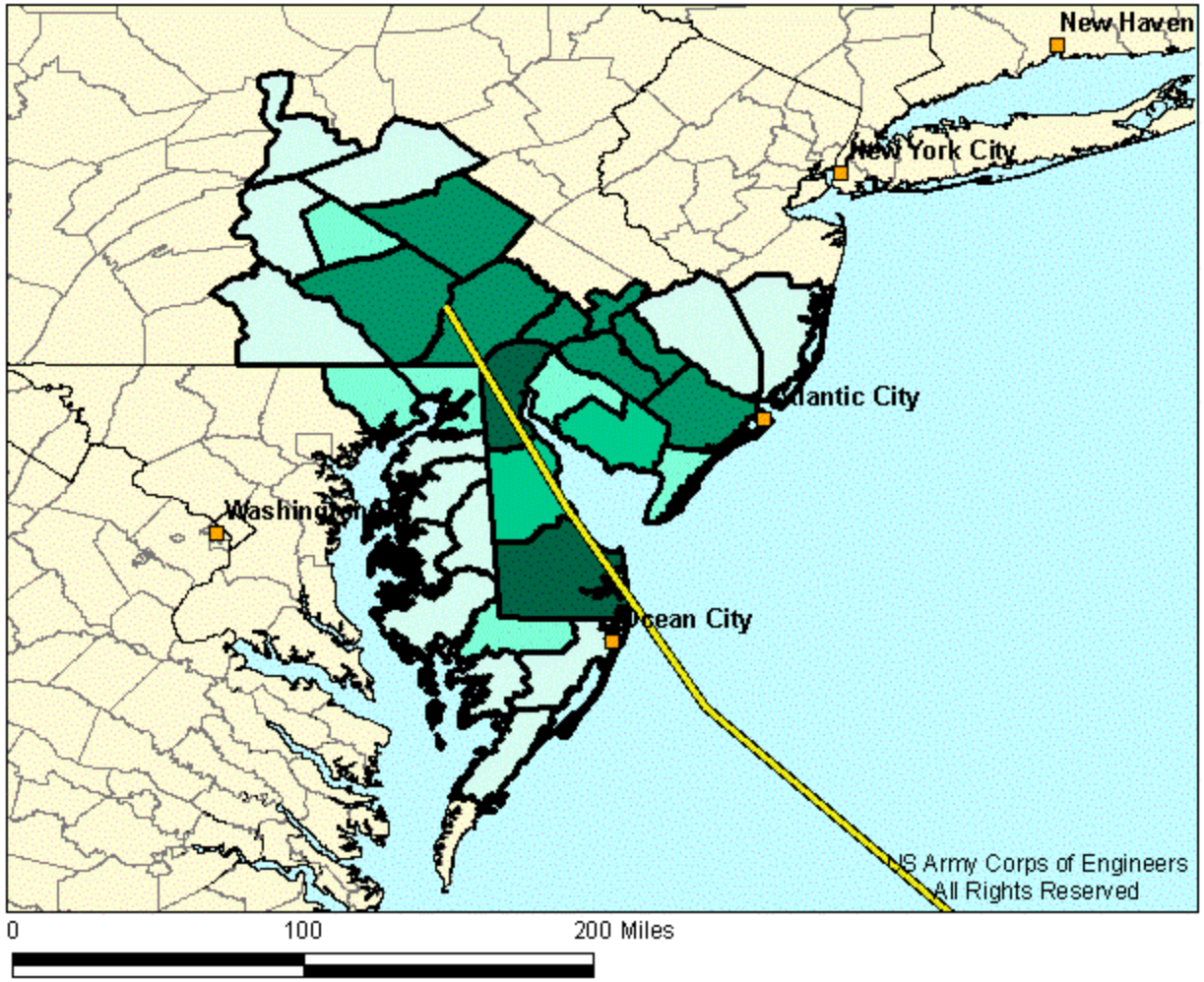
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane DE#1 Commodities Model

Landfall Plus About **12** Hours

For Planning Purposes Only!



Post Landfall Water Model Results

Day One / Day Two / Day Three

DE – 44/87/174 Truckloads
PA – 41/82/164 Truckloads
NJ – 28/56/105 Truckloads
MD – 9/18/36 Truckloads
VA – 1/1/2 Truckloads

Model results per County on following page

This model is based on a Category 2 storm making landfall in Delaware Bay area.

Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 2 storm making landfall in Delaware Bay area. These projections are based on information from the NHC ***(0830 EDT 05/19/2008)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents single day needs with full distribution system in place and operating.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane DE#1 Commodities Model	
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Sources: HURREVAC LRL-DEBRIS	Page 4 of 13

US Army Corps of Engineers

Hurricane DE#1 Commodities Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Delaware		Kent	12
		New Castle	43
		Sussex	119
Delaware	174		
Maryland		Caroline	3
		Cecil	8
		Dorchester	1
		Harford	5
		Kent	2
		Queen Anne's	2
		Somerset	2
		Talbot	1
		Wicomico	8
		Worcester	4
Maryland	36		
New Jersey		Atlantic	22
		Burlington	2
		Camden	30
		Cape May	8
		Cumberland	13
		Gloucester	23
		Ocean	1
		Salem	6
New Jersey	105		
Pennsylvania		Berks	22
		Chester	33
		Dauphin	1
		Delaware	39

State	Truckloads per State	County	Truckloads per County
Pennsylvania		Lancaster	33
(continued)		Lebanon	9
		Northumberland	1
		Philadelphia	22
		Schuylkill	3
		York	1
Pennsylvania	164		
Virginia		Accomack	2
Virginia	2		

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested needs based on phased deployment of a commodities distribution system.

Details about this model may be obtained at http://www.englink.usace.army.mil
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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane DE#1 Commodities Model

Generated By:
Siemsen, LRL 0900 EDT 05/19/2008

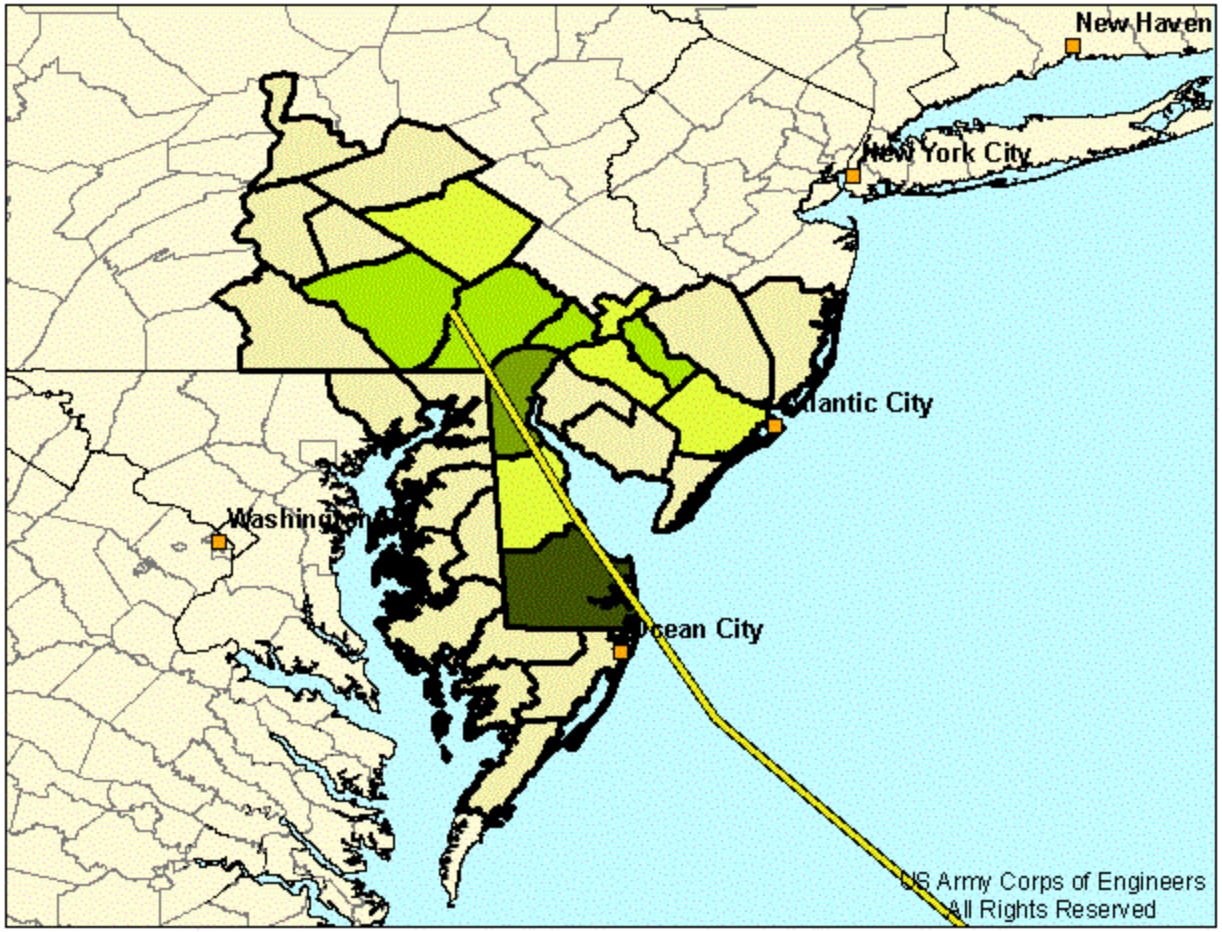
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane DE#1 Temporary Roofing Model

Landfall Plus About 12 Hours

For Planning Purposes Only!



Post Landfall Temporary Roofing Model Results

Delaware - 39,900
Pennsylvania - 22,300
New Jersey - 15,300
Maryland - 5,500
Virginia - 300

Model results per County on following page

This model is based on a Category 2 storm making landfall in Delaware Bay area.

Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 2 storm making landfall in Delaware Bay area. These projections are based on information from the NHC (0830 EDT 05/19/2008) forecast. Temporary roofing is based on 3% in CAT 1 and 6% in CAT 2.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane DE#1 Roofing Model	
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Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane DE#1 Temporary Roofing Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Delaware		Kent	3,200
		New Castle	9,000
		Sussex	27,700
Delaware	39,900		
Maryland		Caroline	400
		Cecil	1,600
		Dorchester	< 100
		Harford	700
		Kent	200
		Queen Anne's	200
		Somerset	200
		Talbot	< 100
		Wicomico	1,100
		Worcester	1,100
Maryland	5,500		
New Jersey		Atlantic	3,100
		Burlington	200
		Camden	4,200
		Cape May	2,000
		Cumberland	1,700
		Gloucester	3,100
		Ocean	< 100
		Salem	1,000
New Jersey	15,300		
Pennsylvania		Berks	3,100
		Chester	4,400
		Dauphin	< 100
		Delaware	5,500

State	House Units per State	County	House Units per County
Pennsylvania		Lancaster	4,500
(continued)		Lebanon	1,300
		Northumberland	< 100
		Philadelphia	3,100
		Schuylkill	400
		York	< 100
Pennsylvania	22,300		
Virginia		Accomack	300
Virginia	300		

Temporary roofing is based on 3% in CAT 1 and 6% in CAT 2.

Details about this model may be obtained at http://www.englink.usace.army.mil
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Hurricane DE#1 Roofing Model

Generated By:
Siemsen, LRL 0900 EDT 05/19/2008

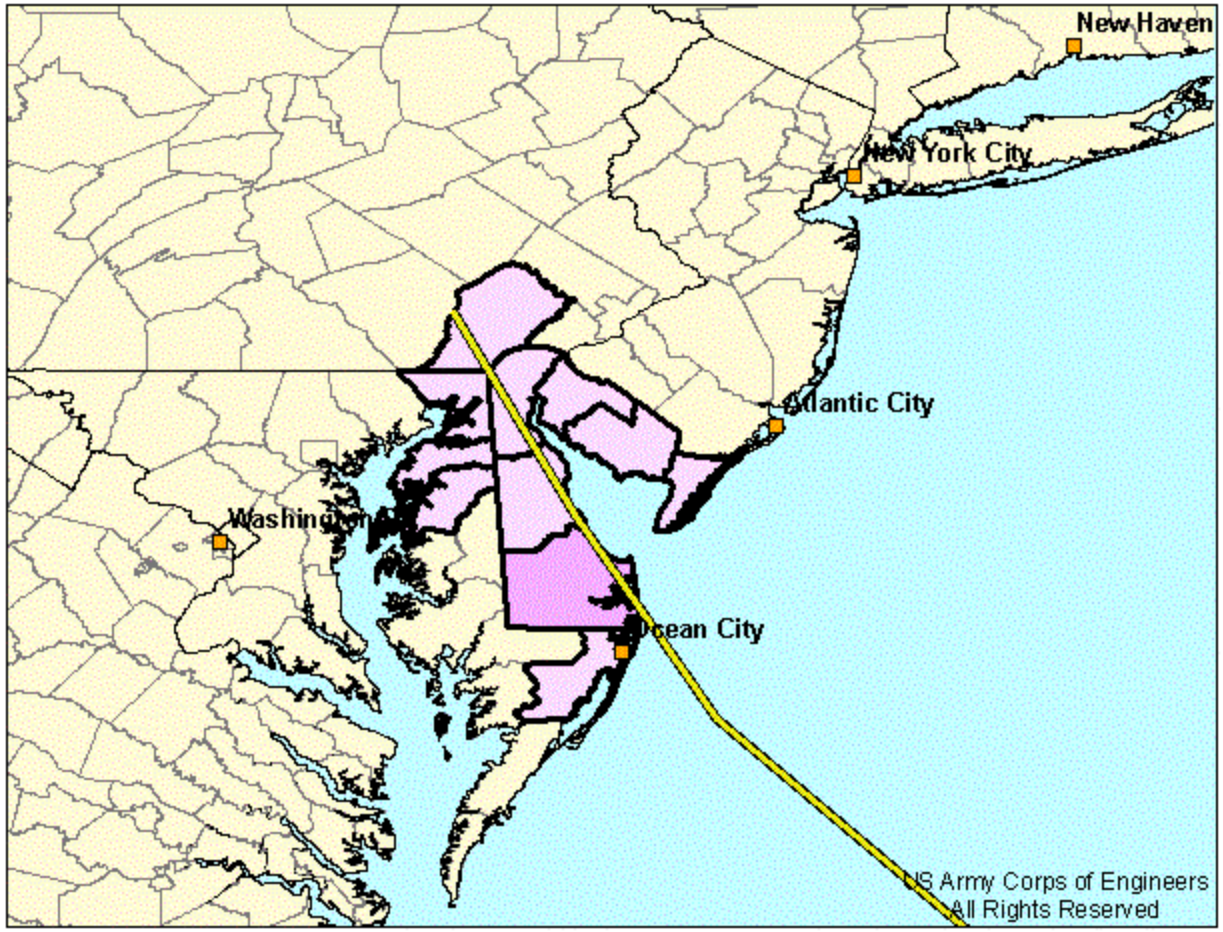
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane DE#1 Temporary Housing Model

Landfall Plus About 12 Hours

For Planning Purposes Only!



Post Landfall Temporary Housing Model Results

Delaware - 5,400
Maryland - 400
New Jersey - 300

Model results per County on following page

This model is based on a Category 2 storm making landfall in Delaware Bay area.

Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 2 storm making landfall in Delaware Bay area. These projections are based on information from the NHC (0830 EDT 05/19/2008) forecast. Temporary housing is based on 1% in CAT 2.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane DE#1 Housing Model	
Generated By: Siemsen, LRL 0900 EDT 05/19/2008	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane DE#1 Temporary Housing Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Delaware		Kent	600
		New Castle	1,000
		Sussex	3,800
Delaware	5,400		
Maryland		Cecil	200
		Kent	< 100
		Queen Anne's	< 100
		Worcester	200
Maryland	400		
New Jersey		Cape May	300
		Cumberland	< 100
		Salem	< 100
New Jersey	300		
Pennsylvania		Chester	< 100
Pennsylvania			

Temporary housing is based on 1% in CAT 2.

Details about this model may be obtained at http://www.enqlink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Hurricane DE#1 Housing Model

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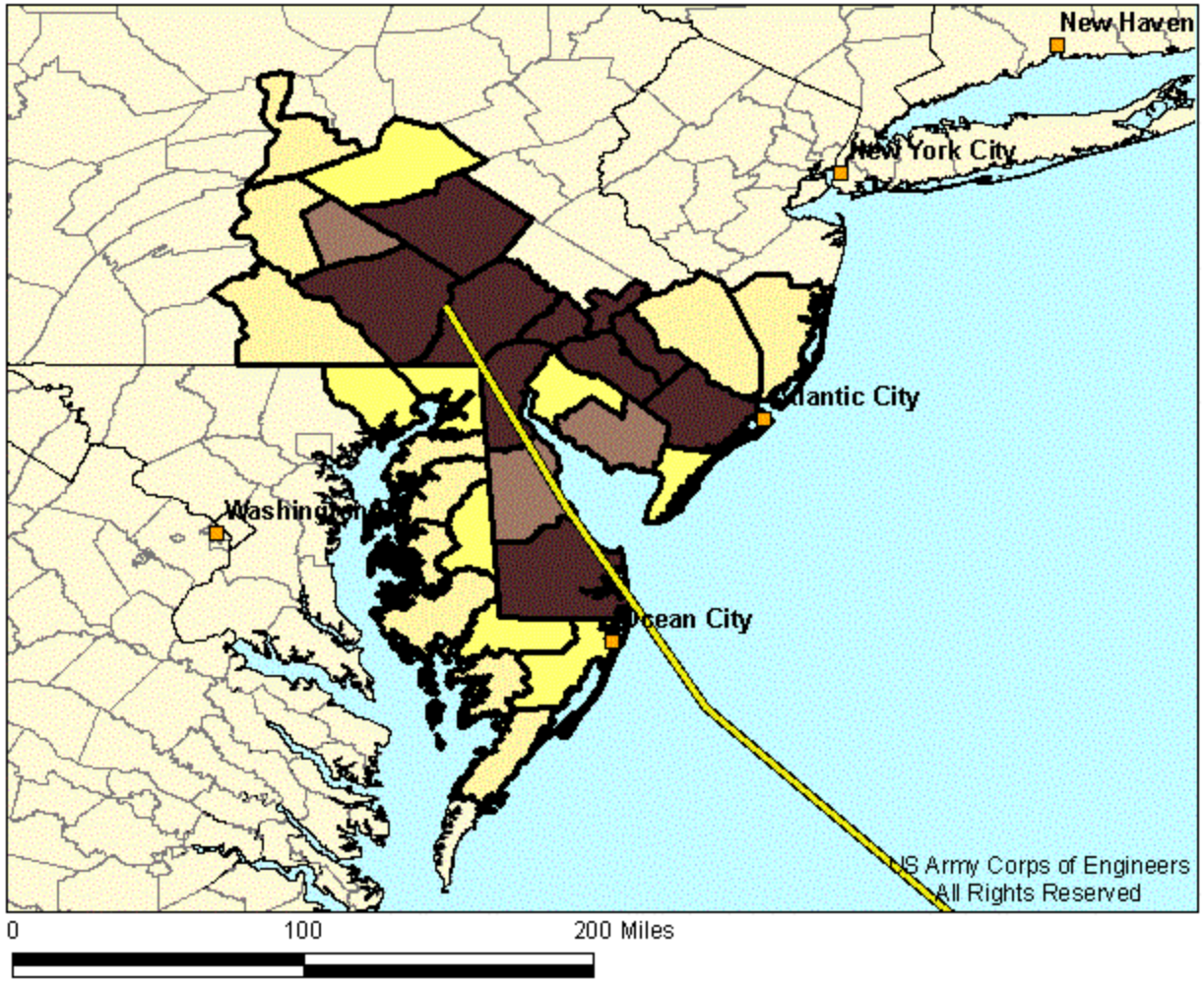
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane DE#1 Population Model

Landfall Plus About 12 Hours

For Planning Purposes Only!



Post Landfall Population Model Results

Delaware - 2,160,000
Pennsylvania - 1,974,000
New Jersey - 1,264,000
Maryland - 391,000
Virginia - 21,000

Model results per County on following page

This model is based on a Category 2 storm making landfall in Delaware Bay area.

Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 2 storm making landfall in Delaware Bay area. These projections are based on information from the NHC (0830 EDT 05/19/2008) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2006 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane DE#1 Population Model	
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Sources: HURREVAC LRL-DEBRIS	Page 10 of 13

US Army Corps of Engineers

Hurricane DE#1 Population Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Delaware		Kent	148,000
		New Castle	527,000
		Sussex	1,485,000
Delaware	2,160,000		
Maryland		Caroline	32,000
		Cecil	100,000
		Dorchester	8,000
		Harford	58,000
		Kent	16,000
		Queen Anne's	17,000
		Somerset	19,000
		Talbot	2,000
		Wicomico	90,000
		Worcester	49,000
Maryland	391,000		
New Jersey		Atlantic	272,000
		Burlington	17,000
		Camden	370,000
		Cape May	98,000
		Cumberland	155,000
		Gloucester	283,000
		Ocean	2,000
		Salem	67,000
New Jersey	1,264,000		
Pennsylvania		Berks	265,000
		Chester	406,000
		Dauphin	< 1,000
		Delaware	486,000

State	Population per State	County	Population per County
Pennsylvania		Lancaster	412,000
(continued)		Lebanon	105,000
		Northumberland	< 1,000
		Philadelphia	266,000
		Schuylkill	31,000
		York	3,000
Pennsylvania	1,974,000		
Virginia		Accomack	21,000
Virginia	21,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2006 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
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Hurricane DE#1 Population Model

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Siemsen, LRL 0900 EDT 05/19/2008

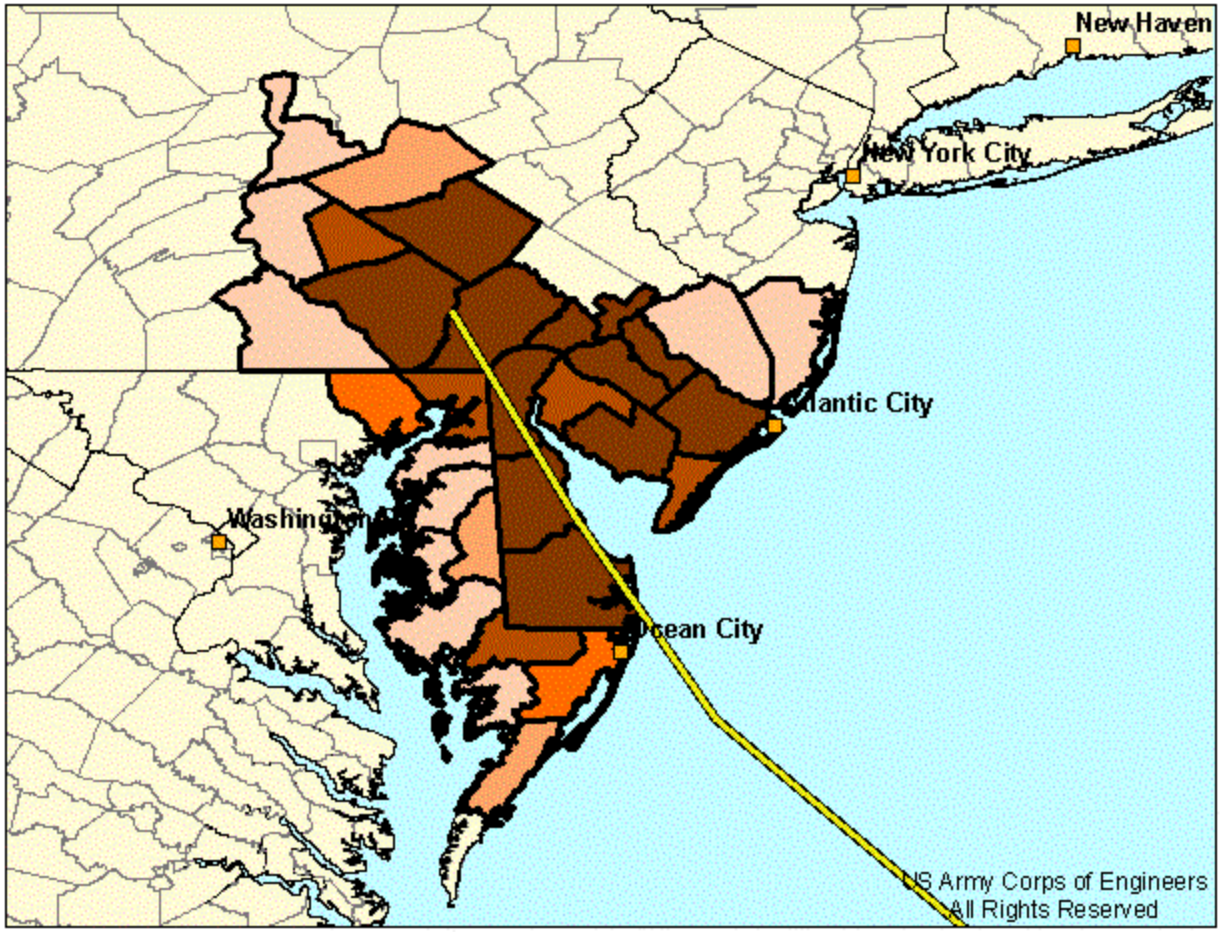
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane DE#1 Households Model

Landfall Plus About 12 Hours

For Planning Purposes Only!



Post Landfall Households Model Results

Delaware - 804,000
Pennsylvania - 740,000
New Jersey - 468,000
Maryland - 149,000
Virginia - 9,000

Model results per County on following page

This model is based on a Category 2 storm making landfall in Delaware Bay area.

Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 2 storm making landfall in Delaware Bay area. These projections are based on information from the NHC (0830 EDT 05/19/2008) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2006 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane DE#1 Households Model	
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Sources: HURREVAC LRL-DEBRIS	Page 12 of 13

US Army Corps of Engineers

Hurricane DE#1 Households Model

Landfall Plus About 12 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Delaware		Kent	56,000
		New Castle	199,000
		Sussex	549,000
Delaware	804,000		
Maryland		Caroline	12,000
		Cecil	37,000
		Dorchester	3,000
		Harford	22,000
		Kent	6,000
		Queen Anne's	7,000
		Somerset	6,000
		Talbot	< 1,000
		Wicomico	35,000
		Worcester	21,000
Maryland	149,000		
New Jersey		Atlantic	103,000
		Burlington	6,000
		Camden	139,000
		Cape May	41,000
		Cumberland	52,000
		Gloucester	101,000
		Ocean	< 1,000
		Salem	26,000
New Jersey	468,000		
Pennsylvania		Berks	102,000
		Chester	145,000
		Dauphin	< 1,000
		Delaware	184,000

State	Households per State	County	Households per County
Pennsylvania		Lancaster	150,000
(continued)		Lebanon	41,000
		Northumberland	< 1,000
		Philadelphia	104,000
		Schuylkill	12,000
		York	2,000
Pennsylvania	740,000		
Virginia		Accomack	9,000
Virginia	9,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2006 values.

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Hurricane DE#1 Households Model

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